

Dynamic Training Environments of the Future



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A collage of five military aircraft. At the top is an F-117 Stealth Fighter in a dark, stealthy configuration. Below it is an F-22 Raptor, a highly maneuverable fighter jet. In the center is a C-17 Globemaster III, a large military transport aircraft. Below that is an F-35 Lightning II, a fifth-generation fighter jet. At the bottom is a CH-53E Super Stallion, a heavy-lift helicopter. The aircraft are arranged in a vertical sequence against a dark blue background with white clouds.

“If you want to go anywhere in modern war, in the air, on the sea, on the land, you must have command of the air.”

The United States Air Force dominates Air, Space, and Cyberspace



Developing the Future Airman



Partnering to Define an End-to-End LIFE-CYCLE AIRMAN



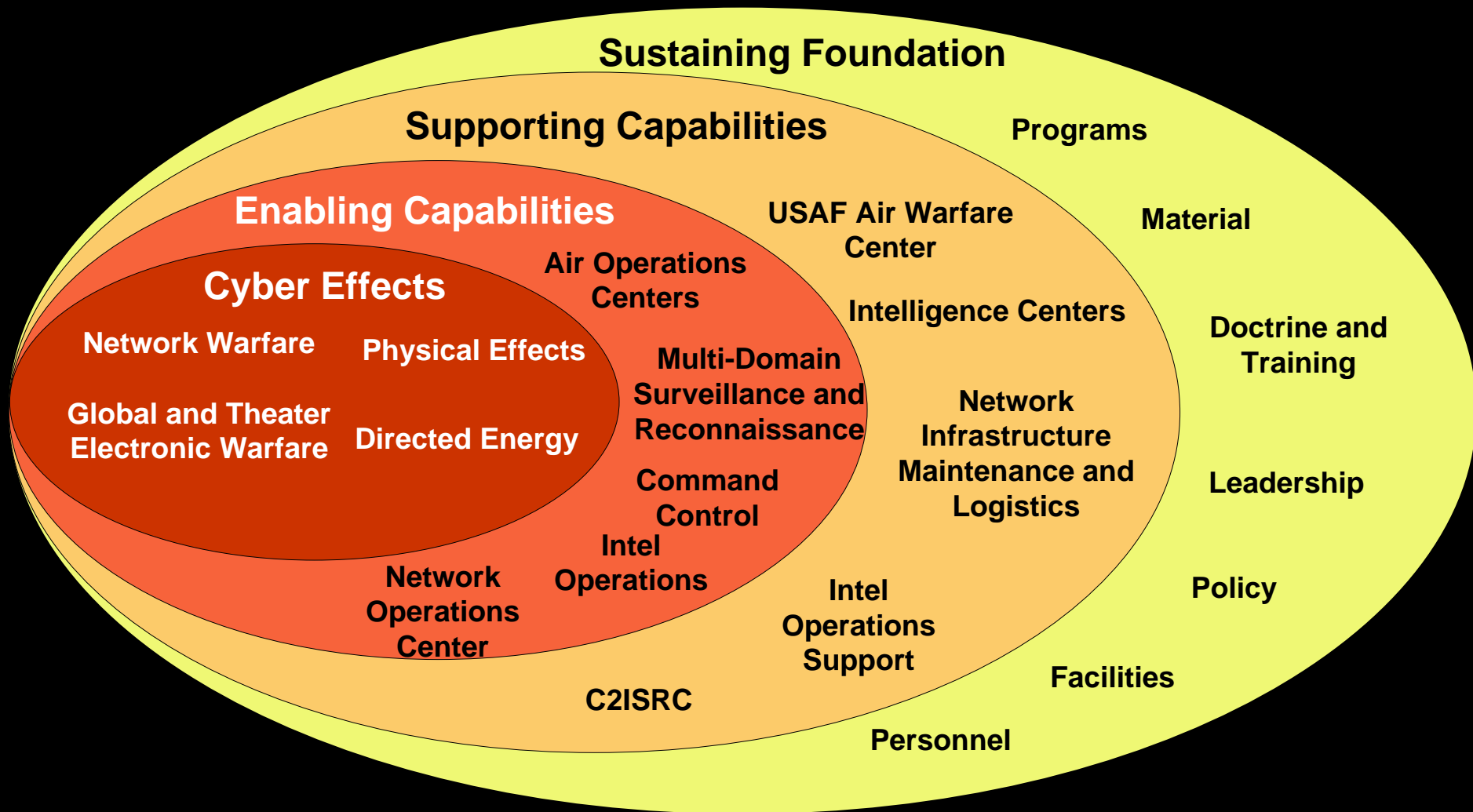
Creating the Competitive Edge



Integrity - Service - Excellence

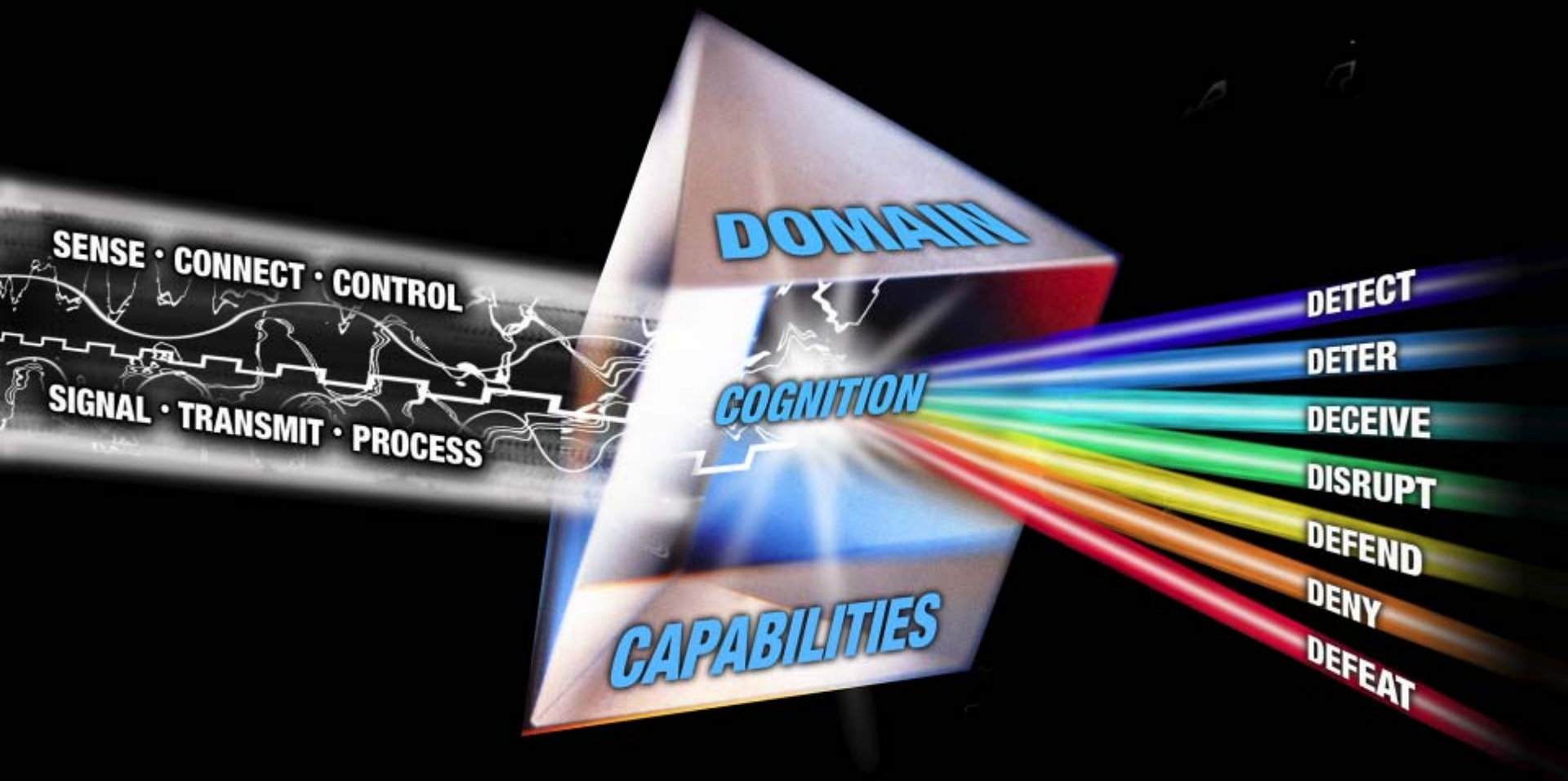


Creating Operational Environments In a Cyber world



Integrity - Service - Excellence

Its All About The Effects



Full Spectrum Dominance: Global effects at the speed of light

Emerging Disruptive Technologies: Games

- Synthetic Network Warfare
- Constructive Cyber Space
- Advanced Simulators
- Global Interaction
- Human Factors/Behaviors
- Directed Energy
- Inter-Active Competitive Sims
- Virtual Testing/Training
- Nano ... Bio ... Quantum

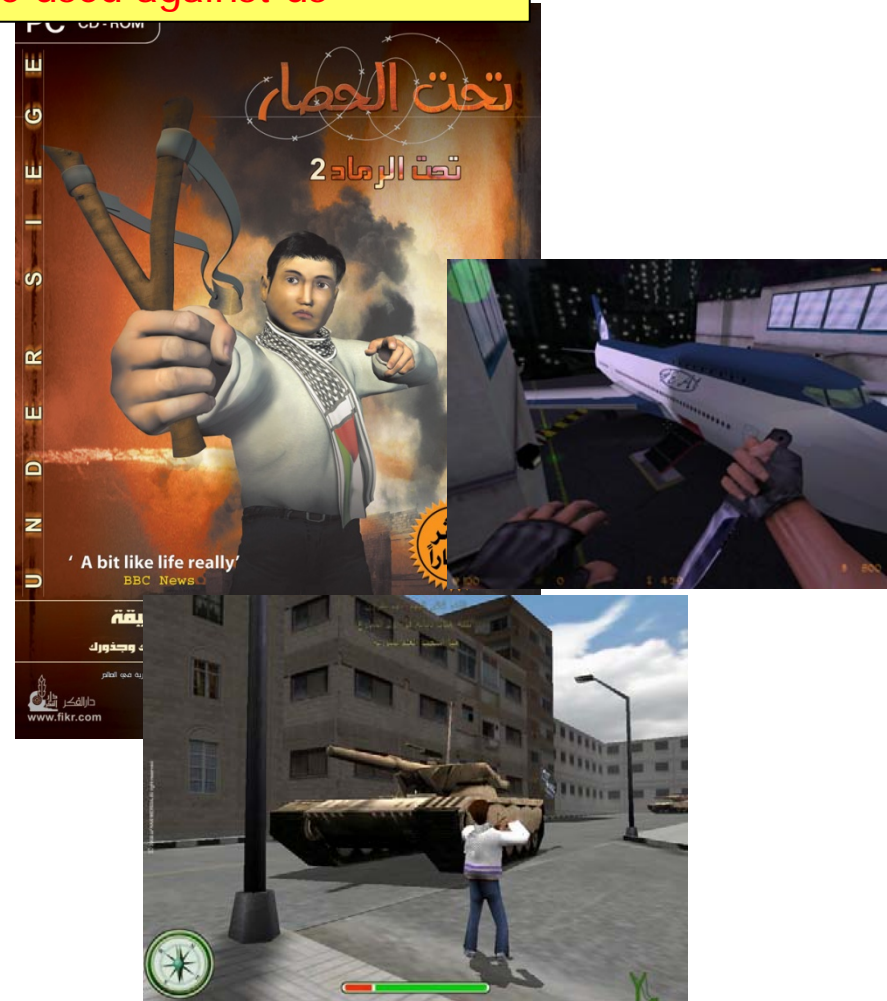


Live-Virtual-Constructive Integration to Support All M&S Domains

Cyber Command Implications

The video game is the new media in cyberspace, it can be used by us and it will be used against us

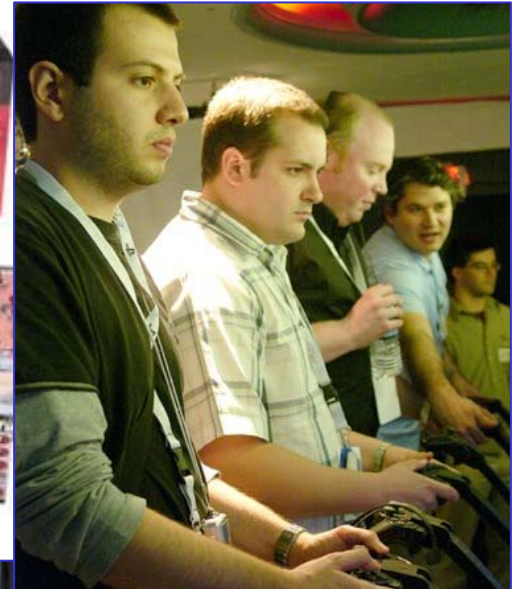
- Games are a huge and unexploited part of cyberspace
 - Greater than \$10B revenue in 2005
 - Billions playing online (some of them are terrorists)
- British MI-6 is recruiting game players, within online games for counter-terrorism work
- Adversaries use games
 - 9/11 hijackers used MS Flight Sim
 - Under Siege & Special Force (Hezbollah)
 - Rescue the Nuclear Scientist (Iran)
- Online Games used for cyber attacks, espionage, & command and control
- MMORPG used to generate revenue through the sale of in-game items for real-world currency



The MMORPG is the emergence of a new society

Types of Strategy Games

- Abstract strategy
- Simulation
- *Real-time strategy*
- War game
- Real-time tactics
- *Turn-based*
- City building
- Multiple Worlds
- Global Cyberspace
- Command & Control



The commander is the giant eye in the sky through an entire war

A4R M&S Priority: Combat Convoy Mission Rehearsal Tool

- This generation of Airmen grew up on video games



- They are doing it on their own
- Time to adapt to new way of training
- Provide Airmen the tool to ensure they reinforce the right Convoy skills

- Lay framework for other ACS functions
- Adapt existing tech for DoD compliance
- AF Portal brings it to any .mil computer

- ***Saves \$\$\$ & increases accessibility***



Gaming Opportunities

- **Gaming Center for the entire Air Force**
 - Taking Wargaming through the next evolution
- **Exploiting game tech to support the mission across ALL domains**
 - Rapid game solutions to meet urgent needs
- **Develop official Air Force game based solution**
 - Common toolset for modeling sensors
 - Great for rapid CONOPS testing
- **Promote and sell the AF and United States mission**
 - Demonstration via Interaction
 - Official recruiting games
- **Structured after a commercial game studio**
 - Leverage the industry talent
 - Capitalize on existing investments



America's Air Force

The Future...

Firmly Resolving Ourselves to Action

- **Looking to a limitless horizon**
...striving for greater air, space and cyberspace capabilities
- **Securing Cyberspace**
...taking action to increase our advantage in this new domain
- **Emphasizing innovation**
...improving Joint warfighting
...improving processes
...pursing energy initiatives

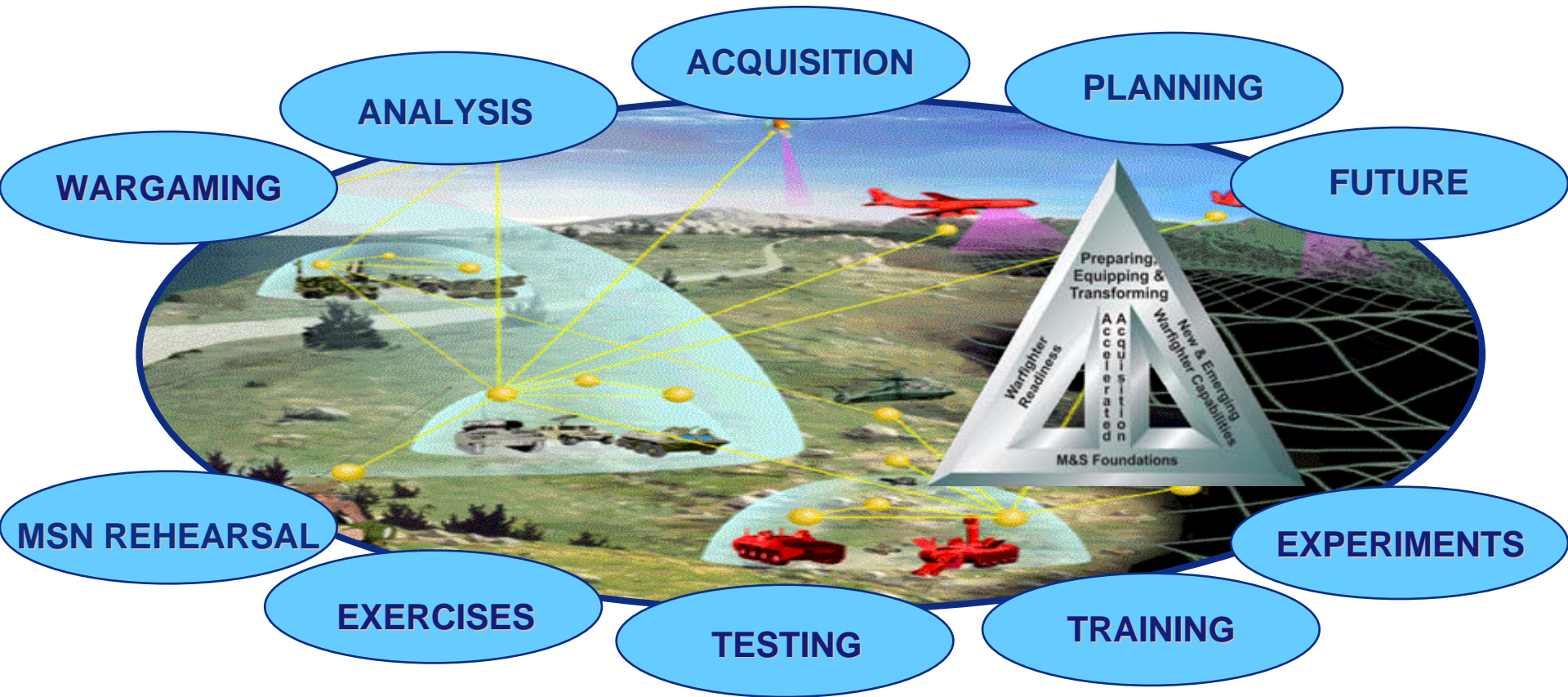


A large American flag is shown waving in the wind against a blue sky with scattered white clouds. The flag's stars and stripes are clearly visible, and the overall scene conveys a sense of patriotism and openness.

Questions?

Modeling and Simulation

Multiple Activities and Disciplines



What is achieved from simulation?

1) Safer 2) WX 3) MX 4) Joint 5) Real 6) Greater Security 7) Interoperative

In simulation, there IS a rerun button!

Guided by Three Priorities

Our Mission...

...deliver sovereign options for the defense of the U.S. and its interests – in air, space, and cyberspace.”

Everything is done in context of Jointness



- ***Win the Global War on Terror***
- ***Recapitalize/Modernize***
- ***Care for Airmen***



Failure is not an option...Can't afford to re-learn lessons!